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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,447	04/06/2001	Ernesto C. Barreyro	7190	6188

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Zenith Electronics Corporation
2000 Millbrook Drive
Lincolnshire, IL 60069

EXAMINER

TRAN, TRANG U

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 01/05/2004

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/827,447

Applicant(s)

BARREYRO ET AL.

Examiner

Trang U. Tran

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 9-13 and 20-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Takashimizu et al. (US Patent No. 6,185,228 B1).

In considering claim 9, Takashimizu et al discloses all the claimed subject matter, note 1) the claimed finding the data component identifying the first selected channel in the PSIP data table received in the digital television signal is met by the tuner 502, the QPSK demodulator 503, the FEC 504 and the second packet separating circuit 509 (Fig. 15, col. 10, line 15 to col. 11, line 35), and 2) the claimed modifying the digital television signal by replacing the data component identifying the first selected channel with the data component identifying the second selected channel is met by the packet replacing circuit 510 which replaces all of the packets having a preselected PID by arbitrary data (Figs. 15-22, col. 11, line 43 to col. 15, line 25).

In considering claim 10, the claimed wherein the finding of the data component and the replacement of the data component identifying the first selected channel with the data component identifying the second selected channel are performed at baseband is met by the packet replacing circuit 510 which replaces all of the packets having a preselected PID by arbitrary data processing after demodulated (recovered the baseband signal) (Figs. 15-22, col. 11, line 43 to col. 15, line 25).

In considering claim 11, the claimed re-computing a cyclic redundancy code based upon the data component identifying the second selected channel, and, replacing a cyclic redundancy code data component in a PSIP packet with the re-computed cyclic redundancy code is met by the error checking CRC code is added to the data 21 of the actual packet, the CRC code of the replaced data may be calculated by the system controller 513, alternatively, a CRC code generating circuit (not show) may be employed in the packet replacing circuit 510, so that the CRC code may be generated, or added (Figs. 18, 21 and 22, col. 14, line 44 to col. 15, line 25).

In considering claim 12, the claimed further comprising modifying the digital television signal by replacing a virtual channel data component in the PSIP data table with a replacement virtual channel data component is met by the packet replacing circuit 510 which replaces all of the packets having a preselected PID by arbitrary data (Figs. 15-22, col. 11, line 43 to col. 15, line 25).

Claim 13 is rejected for the same reason as discussed in claim 11.

In considering claim 20, the claimed wherein the first selected channel comprises a first physical channel, and wherein the second selected channel comprises a second

physical channel is met by the desirable logical channel and the packet replacement channel, generally speaking, in a digital broadcasting system, a single frequency at which a plurality of programs are multiplexed is referred to as a physical channel (Fig. 3, col. 5, lines 18-65).

Claim 21 is rejected for the same reason as discussed in claim 12.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takashimizu et al. (US Patent No. 6,185,228 B1) in view of Citta et al (US Patent No. 6,559,898 B1).

In considering claim 1, Takashimizu et al discloses all the claimed subject matter, note 1) the claimed a tuner tuned to receive an RF digital television signal on a first selected television channel is met by the tuner 502 (Fig. 15, col. 10, lines 15-39), 2) the claimed a demodulator arranged to provide a baseband television signal from the RF digital television signal to which the tuner is tuned, wherein the baseband television signal includes a data component identifying the first selected channel is met by the QPSK demodulator 503 (Fig. 15, col. 10, lines 15-43), and 3) the claimed a data replacer arranged to modify the baseband television signal by replacing the data component identifying the first selected channel with a data component identifying a

second selected channel different from the first selected channel is met by the packet replacing circuit 510 which replaces all of the packets having a preselected PID by arbitrary data (Figs. 15-22, col. 11, line 43 to col. 15, line 25). However, Takashimizu et al explicitly does not disclose the claimed a modulator arranged to modulate the baseband television signal including the data component identifying the second selected channel for transmission as a digital television signal on the second selected channel.

Citta et al teach that the encoded and modulated VSB signal is supplied over a cable network 23, which may comprise a single coaxial cable or a relatively complex home cable network, to an RF channel input of a tuner 26 of the VSB digital television receiver 24, the signal may also be amplified by a low power RF amplifier 25 (Fig. 1) and transmitted wirelessly to the VSB digital television receiver 24 in an assigned RF broadcast television channel (Fig. 1, col. 3, lines 34-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the modulator as taught by Citta et al into Takashimizu et al's system in order to provide a digital encoder-modulator for coupling a baseband digital signal to a VSB digital television receiver.

In considering claim 2, the claimed wherein the data replacer is also arranged to re-compute a cyclic redundancy code based upon the data component identifying the second selected channel and to replace a cyclic redundancy code data component in the baseband television signal with the re-computed cyclic redundancy code is met by the error checking CRC code is added to the data 21 of the actual packet, the CRC

code of the replaced data may be calculated by the system controller 513, alternatively, a CRC code generating circuit (not show) may be employed in the packet replacing circuit 510, so that the CRC code may be generated, or added (Figs. 18, 21 and 22, col. 14, line 44 to col. 15, line 25) of Takashimizu et al.

In considering claim 3, the claimed wherein the data replacer is also arranged to modify the baseband television signal by replacing a virtual channel data component in the baseband television signal with a replacement virtual channel data component is met by the packet replacing circuit 510 which replaces all of the packets having a preselected PID by arbitrary data processing after demodulated (recovered the baseband signal) (Figs. 15-22, col. 11, line 43 to col. 15, line 25) of Takashimizu et al.

Claim 4 is rejected for the same reason as discussed in claim 2.

In considering claim 18, the claimed wherein the first selected channel comprises a first physical channel, and wherein the second selected channel comprises a second physical channel is met by the desirable logical channel and the packet replacement channel, generally speaking, in a digital broadcasting system, a single frequency at which a plurality of programs are multiplexed is referred to as a physical channel (Fig. 3, col. 5, lines 18-65) of Takashimizu et al.

Claim 19 is rejected for the same reason as discussed in claim 3.

6. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takashimizu et al. (US Patent No. 6,185,228 B1) in view of Citta et al (US Patent No. 6,559,898 B1) and further in view of Reitmeier (US Patent No. 6,115,080).

In considering claim 5, the combination of Takashimizu et al disclose all the limitations of the instant invention as discussed in claim 1 above, except for providing the claimed wherein the data replacer is also arranged to modify the baseband television signal by replacing an NTSC channel data component in the baseband television signal with a replacement NTSC channel data component. Reitmeier teaches that the channel selection routine 500 is used to rapidly identify, based on the input of a user, a new channel to be selected, that is, in response to a digit indicative of the selection of a particular class of channel (e.g., NTSC, presently tuned ATSC, untuned ATSC and the like), tuning, demodulation and/or demultiplexing operations associated with that class of channel are invoked in a manner designed to speed up the process of selecting a particular channel within indicated class of channels (Fig. 5, col. 12, line 14 to col. 13, line 67). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the NTSC channel data as taught by Reitmeier into the combination of Takashimizu et al and Citta et al's system in order to select for further processing a desired television channel suitable for use in a television receiver capable of receiving both analog and digitally encoded television signals.

In considering claim 6, the claimed wherein the data replacer is also arranged to re-compute a cyclic redundancy code based upon the data component identifying the second selected channel and to replace a cyclic redundancy code data component in the baseband television signal with the re-computed cyclic redundancy code is met by the error checking CRC code is added to the data 21 of the actual packet, the CRC code of the replaced data may be calculated by the system controller 513, alternatively,

Art Unit: 2614

a CRC code generating circuit (not show) may be employed in the packet replacing circuit 510, so that the CRC code may be generated, or added (Figs. 18, 21 and 22, col. 14, line 44 to col. 15, line 25) of Takashimizu et al.

In considering claim 7, the claimed wherein the data replacer is further arranged to modify the baseband television signal by replacing a virtual channel data component in the baseband television signal with a replacement virtual channel data component is met by the packet replacing circuit 510 which replaces all of the packets having a preselected PID by arbitrary data processing after demodulated (recovered the baseband signal) (Figs. 15-22, col. 11, line 43 to col. 15, line 25) of Takashimizu et al.

Claim 8 is rejected for the same reason as discussed in claim 6.

7. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takashimizu et al. (US Patent No. 6,185,228 B1) in view of Reitmeier (US Patent No. 6,115,080).

In considering claim 14, Takashimizu et al disclose all the limitations of the instant invention as discussed in claim 9 above, except for providing the claimed further comprising modifying the digital television signal by replacing an NTSC channel data component in the PSIP data table with a replacement NTSC channel data component. Reitmeier teaches that the channel selection routine 500 is used to rapidly identify, based on the input of a user, a new channel to be selected, that is, in response to a digit indicative of the selection of a particular class of channel (e.g., NTSC, presently tuned ATSC, untuned ATSC and the like), tuning, demodulation and/or demultiplexing operations associated with that class of channel are invoked in a manner designed to

Art Unit: 2614

speed up the process of selecting a particular channel within indicated class of channels (Fig. 5, col. 12, line 14 to col. 13, line 67). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the NTSC channel data as taught by Reitmeier into Takashimizu et al's system in order to select for further processing a desired television channel suitable for use in a television receiver capable of receiving both analog and digitally encoded television signals.

In considering claim 15, the claimed re-computing a cyclic redundancy code based upon the data component identifying the second selected channel, and, replacing a cyclic redundancy code data component in a PSIP packet with the re-computed cyclic redundancy code is met by the error checking CRC code is added to the data 21 of the actual packet, the CRC code of the replaced data may be calculated by the system controller 513, alternatively, a CRC code generating circuit (not show) may be employed in the packet replacing circuit 510, so that the CRC code may be generated, or added (Figs. 18, 21 and 22, col. 14, line 44 to col. 15, line 25) of Takashimizu et al.

In considering claim 16, the claimed further comprising modifying the digital television signal by replacing a virtual channel data component in the PSIP data table with a replacement virtual channel data component is met by the packet replacing circuit 510 which replaces all of the packets having a preselected PID by arbitrary data (Figs. 15-22, col. 11, line 43 to col. 15, line 25) of Takashimizu et al.

Claim 17 is rejected for the same reason as discussed in claim 15.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Trang U. Tran** whose telephone number is **(703) 305-0090**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John W. Miller**, can be reached at **(703) 305-4795**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231


or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

TT TT
December 27, 2003


JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600